

Área do círculo

①

$$C = 2\pi R$$

$$C = 2\pi \cdot 1,5 = 3\pi$$

$$3\pi \cdot n = 720$$

$$n = \frac{720}{3\pi}$$

$$3\pi$$

720 autonomia

$$n = 76,39$$

$$n \approx 76$$

$$C$$

②

$$C = 2\pi R$$

$$C = 2\pi \cdot 2$$

$$C = 4\pi$$

$$10 \cdot C$$

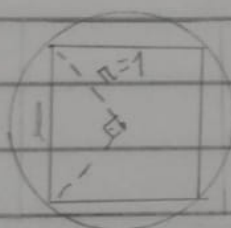
$$10 \cdot 4\pi = 40\pi$$

$$C$$

$$40\pi$$

$$C$$

③



$$A_F = A_C - A_q$$

$$A_F = \pi R^2 - l^2$$

$$l^2 = r^2 + r^2 = 2$$

$$l^2 = 2$$

$$l = \sqrt{2}$$

$$\pi = 3,14$$

$$A_F = \pi(1)^2 - (\sqrt{2})^2$$

$$A_F = \pi - 2$$

$$A_F = 3,14 - 2$$

$$A = 1,14 \quad \boxed{D}$$

④

$$A_T = \frac{(B + b)h}{2}$$

$$\frac{ab}{cm} = \frac{bc}{mm} \Rightarrow \frac{8}{4} \times \frac{8}{x} \Rightarrow x = 4$$

$$A_T = \frac{(8 + 4) \cdot 4}{2} = 24$$

$$A_C = \pi R^2$$

$$A_C = 3,14 = 12,4$$

$$A_F = A_T - A_C$$

$$A_F = 24 - 12,4$$

$$A_F = 11,6 \quad \boxed{A}$$

$$\begin{aligned} \textcircled{5} \quad A_1 &= \pi R^2 & C_2 &= 2\pi R & x &= \frac{A_1}{C_2} = \frac{100\pi}{10\pi} = 10 \\ A_1 &= \pi 10^2 & C_2 &= 2 \cdot 5 \cdot \pi & & \\ A_1 &= 100\pi & C_2 &= 10\pi & & \boxed{10 \text{ C}} \end{aligned}$$

$$\textcircled{6} \quad N = \frac{10}{0,02 \cdot 10^{-4}} = 5000000 \quad \begin{matrix} 10 \text{ mm} \\ \end{matrix}$$

$$N = 5000000 \cdot 5000000 = \boxed{25 \times 10^{10} \text{ virus}} \\ \text{C}$$

$$\begin{aligned} \textcircled{7} \quad A_T &= b \cdot h = 40 \cdot 25 = 600 \\ A_c &= \frac{D \cdot d}{2} = \frac{24 \cdot 12}{2} = 144 \\ A_p &= \pi r^2 = 3,14 \cdot 16 = 50,24 \\ A_v &= b^2 = 3,5 \cdot 3,5 = 12,25 \\ &20 \cdot 6,49 \end{aligned}$$

$$G = 600 - 206,49 = 393,51$$

$$G = 393 \cdot 2,40 = 944,424$$

$$\boxed{G \approx 944,40} \\ \text{C}$$